REMARKS

Claims 1-29 are pending in the case. The Examiner allowed claims 1-6, 10-15, 20, and 23-29. The Examiner objected to claim 9 and rejected claims 7 and 8 under 35 U.S.C. §112, second paragraph as indefinite. The Examiner rejected claims 16, 18, 21, and 22 under 35 U.S.C. §103(a) as being unpatentable in view of U.S. Patent No. 5,640,506 to Duffy (hereinafter "Duffy") and International Publication No. WO 99/38067 to Surugguchi et al. (hereinafter "Surugguchi"). The Examiner rejected claims 17 and 19 under 35 U.S.C. §103(a) in view of Duffy and U.S. Patent No. 6,219,800 to Johnson (hereinafter "Johnson").

Applicant has amended Claims 7-10, and 17 to clarify the invention and comply with informalities. Claims 7 and 8 were amended to satisfy the 35 U.S.C. §112 second paragraph requirements. Claim 9 was amended to comply with informalities. Claim 10 was amended to keep consistency with claim 7 from which it depends. Claim 17 was amended to clarify the invention. Applicant respectfully asserts that the amended claims are free from the objections and rejections and in condition for allowance. Applicant respectfully requests the prompt allowance of Claims 1-29.

REJECTION OF CLAIMS 16, 18, 21, and 22 UNDER 35 U.S.C. §103(a)

The Examiner rejected claims 16, 18, 21, and 22 under 35 U.S.C. §103(a) in view of Duffy and Surugguchi. Applicant respectfully traverses this rejection.

To establish a *prima facie* case of obviousness, the combination of the prior art references must teach or suggest all the claim limitations. *See* MPEP § 2142. Furthermore, even if all the claim limitations are taught or suggested, there must be some suggestion or motivation to combine reference teachings. *See Id.* Applicant respectfully asserts that a *prima facie* case of obviousness has not been made because not all the elements recited in the claims are taught or suggested by the prior art and there is no teaching or suggestion in the art to combine the references to produce the claimed invention.

Applicant respectfully asserts that Duffy and Surugguchi fail to teach or suggest all the claim limitations of the amended independent claims 16, 21, and 22. Claims 16, 21, and 22 recite substantially the same method or data consistency checking procedure embodied

-13-

respectively in a data storage system, computer program product, and apparatus. Consequently, Applicant will focus on claim language common to each of these claims with regard to the obviousness rejection.

Claims 16, 21, and 22 recite, in part:

"providing a number of different types of **data consistency checking levels** to a user;

receiving an indication from the user of a selected type of the number of different types of **data consistency checking levels**; and,

performing a particular data consistency checking technique between the parity data and the user data based on the selected type."

Applicant respectfully asserts that the references fail to teach or disclose a plurality of "data consistency checking levels" nor that such levels are selectable by a user.

Duffy discloses an "improvement on the use of parity and a write cache for a RAID by adding a check code for the parity data itself" (Summary of invention, lines 24-26). Duffy discloses the addition of a parity check code that provides a check on the information in the remainder of the parity sector. In addition, an independent header for the parity sector describing its location on parity drive P and the location of the sector is provided (see col. 3, lines 66-67 and col. 4, lines 1-7). Duffy further discloses that a check code can result from an exclusive OR function where the data blocks are then exclusive "OR"-ed with each other one-by-one as they are cycled through a register in the control processor.

The Examiner properly notes that Duffy fails to teach or disclose data consistency checking levels or that such levels are selectable by a user and relies on Surugguchi for this subject matter. However, Surugguchi also fails to teach data consistency checking levels.

Surugguchi teaches automatic configuration of Redundant Array of Independent Disks (RAID) controllers. *See* Surugguchi page 1, lines 2-3. Specifically, Surugguchi teaches a plurality of RAID levels that represent a "taxonomy of techniques" that involve RAID technology. *See* Surugguchi page 1, lines 6-8. Surugguchi then proceeds to explain what RAID technology configuration is involved with each RAID level. *See* Surugguchi page 1, line 8 – page 2 line 25. These RAID levels are summarized in Surugguchi in Table 1 on page 11. Therefore, the RAID levels comprise different configurations for a RAID.

The Examiner asserts that these RAID levels are equivalent to the data consistency checking levels of claims 16, 21, and 22. *See* Office Action mailed 10/18/04, page 3. Applicant respectfully disagrees. Data consistency checking levels are different methods for checking user data against parity data to identify corrupt data. The data consistency checking levels are described in the Specification on page 15, lines 4-12 as "degree[s] of scrutiny or granularity to which data consistency checking may be performed." These different degrees are defined as levels and are defined in the Specification on page 15, line 5 through page 16 line 3. Selection of a different level or degree, such as level 3, will result in the present invention examining fewer bytes to determine data consistency as set out in the Specification on page 15, lines 18-27.

Therefore, the degree or level of scrutiny applied to performing data consistency, recited as a data consistency checking level is substantially different from a RAID configuration known in the art as a RAID level 0-5. Applicant asserts that this difference is clear to those of skill in the art and indicates that Surugguchi fails to teach all the elements of claims 16, 21, and 22.

In addition, Surugguchi fails to teach selection of data consistency checking levels by a user recited in claims 16, 21, and 22. This subject matter is taught in the specification on page 16, lines 4 – 28.

Finally, even if all the claim limitations are taught or suggested, there must be some suggestion or motivation to combine reference teachings. *See* MPEP § 2142. This suggestion or motivation to combine references must be established by factual findings. "The factual inquiry whether to combine references must be thorough and searching. (quoting *McGinley v. Franklin Sports, Inc.* 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001)).

The Examiner asserts that it would have been obvious to combine multiple levels of RAID of Surugguchi with the RAID system of Duffy because it allows the complex configuration of a RAID controller to be done without the user having knowledge required to do it. See Office Action page 3. Surugguchi teaches different RAID levels that correspond to different types of RAID configurations that are unrelated to levels of data consistency checking. And, Duffy teaches a RAID system directed toward the parity code that does not include data consistency checking levels. Therefore, Applicant asserts that no suggestion or motivation to

combine is suggested. Accordingly, Applicant respectfully submits that neither reference provides a motivation to combine with the methods of the other.

Because Duffy and Surugguchi fail to provide any teaching or suggestion of the data consistency checking levels or their selectivity by a user, Applicant respectfully asserts that claims 16, 21, and 22 are allowable.

Referring to claim 18, Duffy and Surugguchi fail to teach all the elements of claim 16 as described above. Claim 18 depends from claim 16 and therefore should be allowed for at least the same reason as described above in relation to claim 16. In addition, claim 18 recites "comparing the calculated third code to a stored third code in the parity header." Applicant finds no reference to storing of a third code in the parity header in Duffy or Surugguchi. Thus, Applicant trusts that the rejection of claim 18 will therefore be withdrawn.

REJECTION OF CLAIMS 17 and 19 UNDER 35 U.S.C. §103(a)

The Examiner rejected claims 17 and 19 under 35 U.S.C. §103(a) in view of Duffy, Surugguchi, and Johnson. Applicant respectfully traverses this rejection.

Referring to claims 17 and 19, Duffy and Surugguchi fail to teach all the elements of claim 16 as described above. Claims 17 and 19 depend directly or indirectly from claim 16 and therefore should be allowed for at least the same reason as described above in relation to claim 16. Specifically, neither Duffy, Surugguchi, nor Johnson teach or disclose user selectable data consistency checking levels that enable a user to choose the granularity at which data consistency checking will be done. Thus, Applicant trusts that the rejection of claims 17 and 19 will therefore be withdrawn.

In view of the foregoing, Applicant submits that the application is in condition for immediate allowance of claims 1-29. In the event any questions or issues remain that can be resolved with a phone call, the Examiner is respectfully requested to initiate a telephone conference with the undersigned.

Respectfully submitted,

David J. McKenzie
Reg. No. 46,919
Attorney for Applicants

Date: January 18, 2005
8 East Broadway, Suite 600
Salt Lake City, UT 84111
Telephone (801) 994-4646
Fax (801) 322-1054